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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/801,265	03/16/2004	Jean-Paul Bonnet	1055-04	4747
35811	7590	01/23/2006	EXAMINER	
IP GROUP OF DLA PIPER RUDNICK GRAY CARY US LLP			RODRIGUEZ, WILLIAM H	
1650 MARKET ST			ART UNIT	
SUITE 4900			PAPER NUMBER	
PHILADELPHIA, PA 19103			3746	

DATE MAILED: 01/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/801,265	<b>Applicant(s)</b> BONNET ET AL.	
	<b>Examiner</b> William H. Rodriguez	<b>Art Unit</b> 3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 November 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 15-29 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15,16 and 23-29 is/are rejected.
- 7) ☒ Claim(s) 17-22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 March 2004 and 14 November 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### FINAL REJECTION

This office action is in response to the amendment and remarks filed 11/14/05.

#### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, “*an immovable divergent trailing edge...fixed to the internal wall of the engine*” must be shown or the feature(s) canceled from the claim(s). \*No new matter should be entered.

*\*Note: Nowhere in the specification the idea of having a fixed or an immovable divergent trailing edge is taught.*

*Original and new Figures 4, 5, 9 and 10 show a divergent trailing edge 3...fixed to the internal wall of the nozzle, not to the internal wall of the engine (as claimed in new claim 29).*

*New Figures 4, 5 and 9-11 have added a new structural element (a casing surrounding the secondary flux 9). However, this casing does not have a reference sign/numeral identifying it.*

*Figures 4 or 5 should show a jet of fluid (synthetic jet) coming out of controller 4 as claimed in new claims 18 and 19. See paragraph 13 of the specification for more details.*

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing

Art Unit: 3746

should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter of claims 15-29, particularly “the diverging trailing edge being **fixed** in a position (for claim 15); an **immovable** divergent trailing edge (for claim 29)”. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). *Nowhere in the specification the idea of having a fixed or an immovable divergent trailing edge is taught.* Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 3746

4. Claims 15-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 15 recites the limitation "the wall" in lines 10 and 11 respectively. There is insufficient antecedent basis for this limitation in the claim. Further, it is unclear whether this limitation is referring back to "the external wall of the nozzle" or "the internal wall of the engine" or to some other wall. Appropriate correction is required.

Possible corrections for these are:

Replace the recitation "the wall" in line 10 by --the internal wall of the nozzle--.

Replace the recitation "the wall of the nozzle" in line 11 by --both the internal and external walls of the nozzle--.

Claim 15 recites the limitation "the exit nozzle" in line 10. There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

Claim 29 recites the limitation "the internal wall" in line 7. There is insufficient antecedent basis for this limitation in the claim. Further, it is unclear whether this limitation is referring back to "the internal wall of the nozzle" or "the internal wall of the engine" or to some other internal wall. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims are rejected under 35 U.S.C. 102(b) as being anticipated by McAndrews (US 5,184,459).

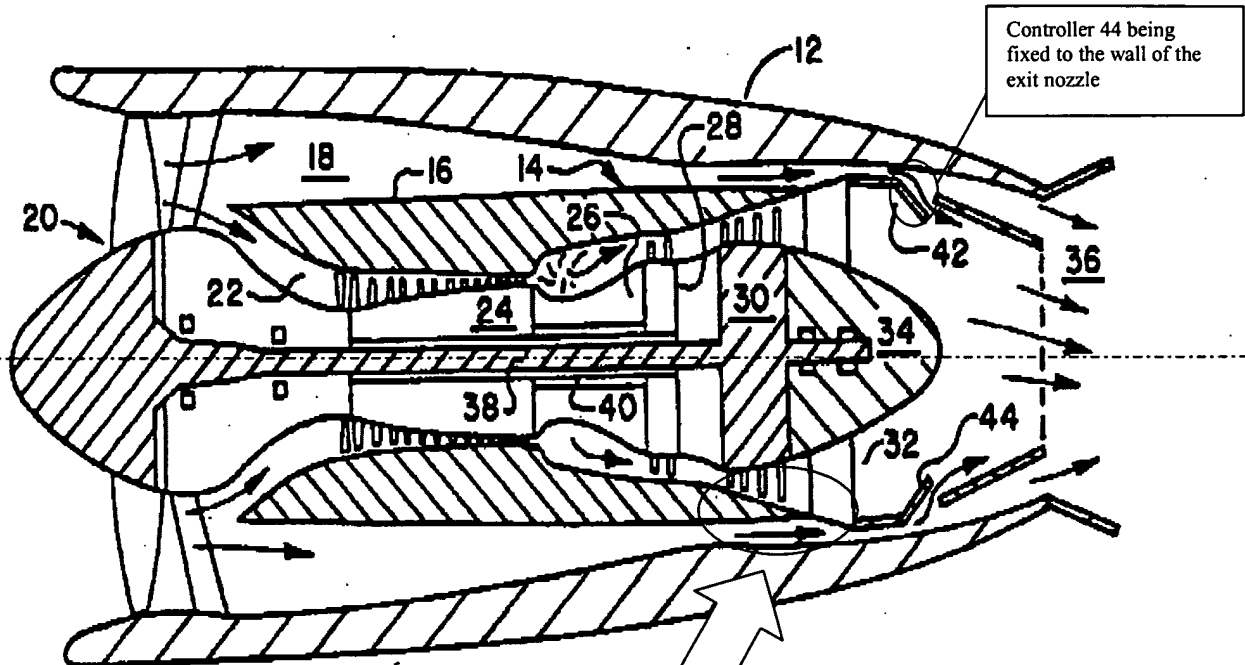
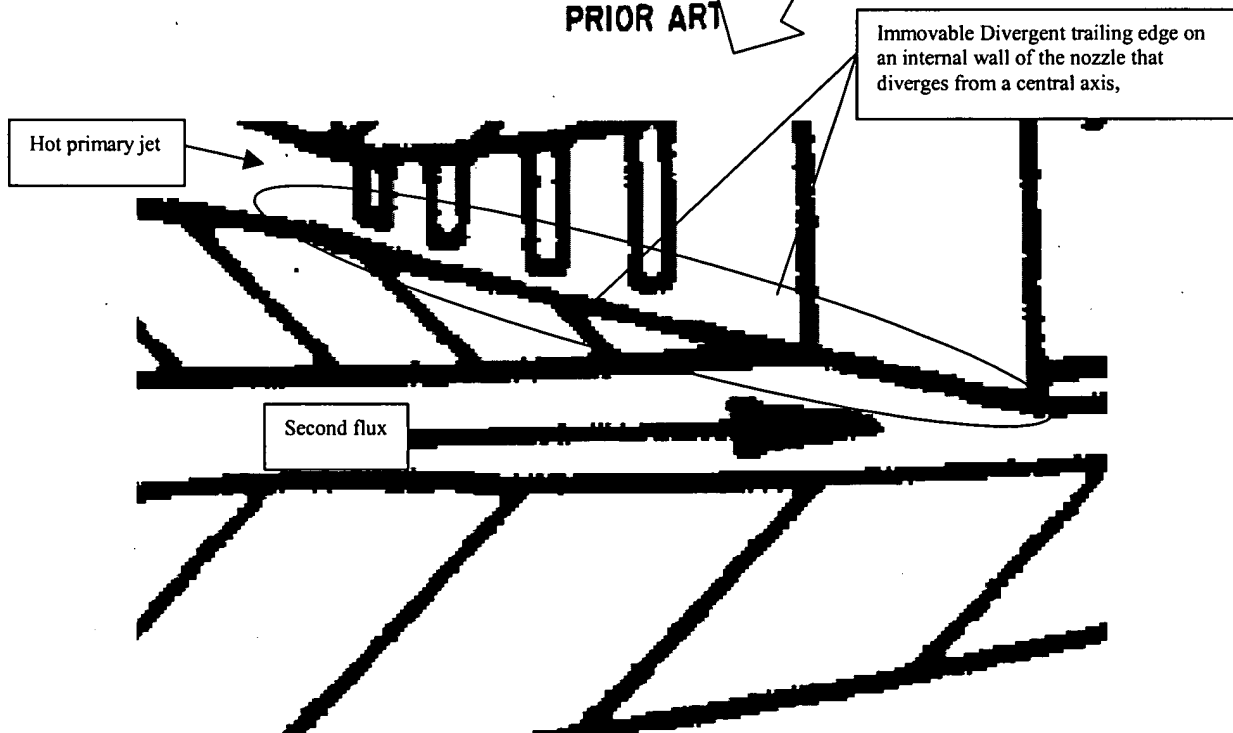


FIG. 1  
PRIOR ART



Art Unit: 3746

The phrase “...enables control of passage of the primary jet from a separated state to a reattached state and vice versa”, recites desired expected results of the controller but does not limit or add any patentable weight to the claim.

Since the claim does not positively recite any structural limitations about the controller but just its desired expected results, the controller recited in the claims does not differentiate the claimed apparatus from a prior art apparatus satisfying the structural limitations of the claims, as is the case here. Basically, all applicant is claiming is a controller fixed to a wall.

**McAndrews** teaches that the primary jet is separated from a wall (separated state) when the controller is activated (as shown in Figure 1) and the primary jet is reattached to the wall (reattached state) when the controller is deactivated. Therefore, the primary jet controller 44 of **McAndrews** performs the desired expected results as expected by the controller of the invention, that is, it (44) enables control of passage of the primary jet from a separated state to a reattached state and vice versa.

With respect to claims 15 and 29, **McAndrews** teaches an engine having a device for controlling propulsive gas mixing at an outlet of said engine, wherein propulsive jets are composed of a hot primary jet exiting from a nozzle of the engine and a secondary flux flowing between an external wall of the nozzle and an internal wall of the engine, the device comprising: a divergent trailing edge/immovable trailing edge on an internal wall of the nozzle that diverges from a central axis extending along the jet engine and generates conditions of a minimal separation of the primary jet from the internal wall; and a primary jet controller that enables control of passage of the primary jet from a separated state to a reattached state, and vice versa; the controller being fixed to the wall of the exit nozzle relative to the primary jet; and the divergent trailing edge being in a fixed position with respect to the wall of the nozzle. See particularly **Figure 1** of **McAndrews** above.

Art Unit: 3746

With respect to claim 16, **McAndrews** teaches that controlling the separation of the primary jet is periodic (elements 42, 44 open and close periodically depending on the mode of operation). See particularly **Figure 1** of McAndrews above.

With respect to claims 23 and 24, **McAndrews** teaches that the controller is arranged on a part of the circumference of the internal wall of the nozzle and on a part of the external wall of the nozzle. See particularly **Figure 1** of McAndrews above.

With respect to claim 25, **McAndrews** teaches that control of the separation of the primary jet is implemented at the trailing edge. See particularly **Figure 1** of McAndrews above.

With respect to claim 26, **McAndrews** teaches that control of the separation of the primary jet is implemented to generate either a symmetrical flow or an antisymmetrical flow at the outlet of the engine. See particularly **Figure 1** of McAndrews above.

With respect to claim 27, **McAndrews** teaches that the trailing edge has an angle with the wall of the nozzle between about 10 and about 30 degree as shown in **Figure 1** of McAndrews above.

With respect to claim 28, **McAndrews** teaches that the wall of the nozzle is convergent upstream of the trailing edge. See particularly **Figure 1** of McAndrews above.



***Allowable Subject Matter***

6. Claims 17-22 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

7. Applicant's arguments filed 11/14/05 have been fully considered but they are not persuasive because of the following reasons:

On page 7 of the response, applicant argues that McAndrews divergent trailing edge is not stationary but movable. Examiner respectfully disagrees because as clearly shown in Figure 1 above, McAndrews divergent trailing edge is stationary, the controller 44 is the one that moves from an activated position to a de-activated position. See particularly **Figure 1** of McAndrews above.

***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period

Art Unit: 3746

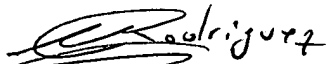
will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

### ***Contact information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Rodriguez whose telephone number is 571-272-4831. The examiner can normally be reached on Monday-Friday 7:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy S. Thorpe can be reached on 571-272-4444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
William H. Rodriguez  
Primary Examiner  
Art Unit 3746

1/17/06